

# KAWAI

*Digital  
Piano*

CA800  
CA600  
CA500(C)

*Owner's Manual*

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This instrument has been certified to comply with the limits for a class B digital apparatus, pursuant to the Radio Interference Regulations, C.R.C., c. 1374.

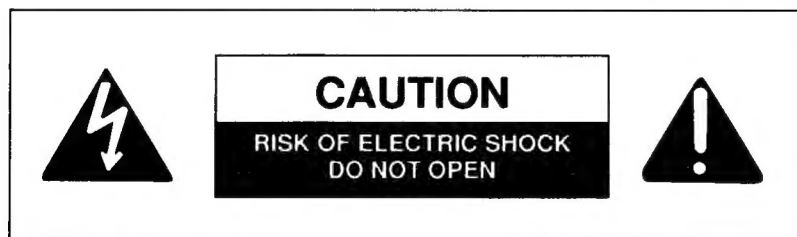
This digital piano should be not commercial use but household use.

# IMPORTANT SAFETY INSTRUCTIONS

**WARNING** - when using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
3. Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
4. Do not touch the power plug with wet hands. There is a risk of electrical shock. Treat the power cord with care as well. Stepping on or tripping over it can break or short-circuit the wire inside.
5. This product should be used only with a cart or stand that is recommended by the manufacturer.
6. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
7. The product should be located so that its location or position does not interfere with its proper ventilation.
8. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
9. Keep the instrument away from electrical motors, neon signs, fluorescent light fixtures, and other sources of electrical noises.
10. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
11. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
12. Always turn the power off when the instrument is not in use. The power supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
13. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
14. The product should be serviced by qualified service personnel when:
  - A. The power supply cord or the plug has been damaged; or
  - B. Objects have fallen, or liquid has been spilled into the product; or
  - C. The product has been exposed to rain; or
  - D. The product does not appear to operate normally or exhibits a marked change in performance; or
  - E. The product has been dropped, or the enclosure damaged.
15. Do not attempt to service the product beyond that described in the user -maintenance instructions. All other servicing should be referred to qualified service personnel.

## SAVE THESE INSTRUCTIONS



### WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

**AVIS: RISQUE DE CHOC ELECTRIQUE** -NE PAS OUVRIR.

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).  
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

## Thank you for purchasing a KAWAI Digital Piano!

The Kawai digital piano is a revolutionary new keyboard instrument that combines the latest in electronic advances with traditional craftsmanship inherited from Kawai's many years of experience in building fine pianos. Its keyboard provides the touch response and full dynamic range required for a superb performance on the piano, harpsichord, organ, and other instrument presets. Moreover, the reverb effect gives you even deeper resonance. Industry-Standard MIDI (Musical Instrument Digital Interface) jacks are included which allow you to play other electronic instruments at the same time - opening a whole new world of musical possibilities.

This Owner's Manual contains valuable information that will help you make full use of this instrument's many capabilities. Read it carefully and keep it handy for further reference.

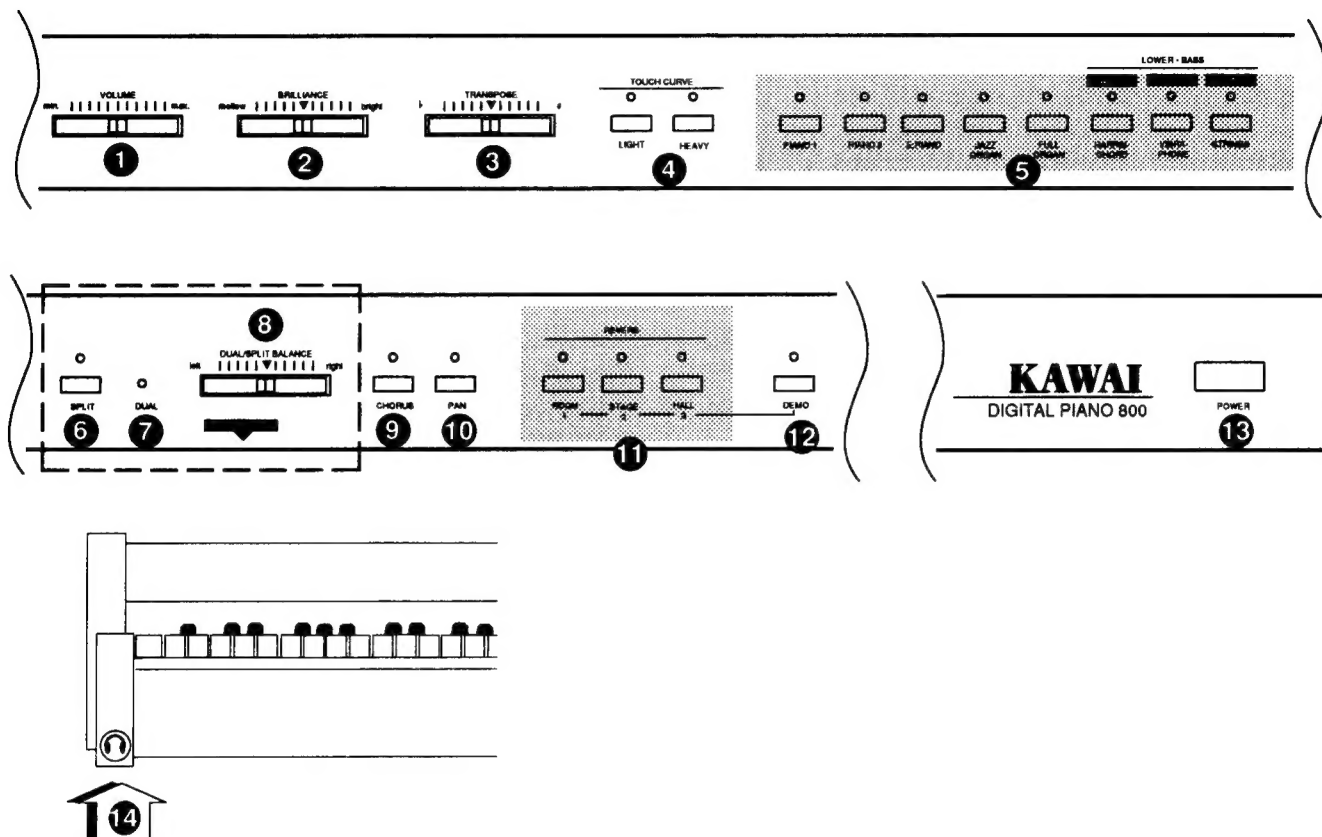
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# Basic Controls

## 1 Front Panel



### ① VOLUME

Move the volume slider to the right to increase the instrument's volume.

Move the slider to the left to decrease the volume.

### ② BRILLIANCE control

This slider controls the brilliance, or clarity, of the sound. Shifting it to the left produces a rich, mellow sound; shifting it to the right, a bright, clear sound. The center position corresponds to the instrument's normal tone.

### ③ TRANSPOSE control

Shifting the slider to the right raises the piano's key (C - C# - D - E<sub>b</sub> - E - F).

Shifting it to the left lowers the key (C - B - B<sub>b</sub> - A - A<sub>b</sub> - G - F#).

You can therefore play the music as written - in C major, for example - and have the instrument transpose the output to a higher or lower key to match your voice.

### ④ TOUCH CURVE selector

Use these switches to select the touch curve.

See p.7 for more information on the touch curve.

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## ⑤ TONE SELECTORS

Select the desired instrument by pressing the appropriate switch.

## ⑥ SPLIT switch (CA800 only)

Pressing this switch splits the keyboard into an upper and lower half, each with different tone colors. When the function is first activated, the keyboard is split at the point marked on the front panel, but this point is changeable (for the procedure, see p.10)

## ⑦ DUAL LED (CA800 only)

Simultaneously pressing two tone selector switches lights this DUAL LED and activates the DUAL mode of operation, in which the piano simultaneously uses two tones instead of just one.

Press a single switch to cancel.

## ⑧ DUAL/SPLIT BALANCE control (CA800 only)

This slider controls the relative loudness of the two voices used in the SPLIT and DUAL modes. Shifting it to the right in the SPLIT mode makes the UPPER keyboard louder. For the DUAL mode, it is the rightmost preset of the pair that becomes louder.

## ⑨ CHORUS

Enhances the sound with the calming depth of a chorus.

*The CHORUS effect is automatically applied when you choose the E.PIANO, JAZZ ORGAN, FULL ORGAN, VIBRAPHONE, or STRINGS preset sounds.*

## ⑩ PAN

Defines the position of each note creating the full stereophonic sound of a real piano.

*The PAN effect is automatically applied when you choose the PIANO 1, PIANO 2, or HARPSICHORD preset sounds.*

## ⑪ REVERB switches

These add REVERB (echo) effect to the sound for greater beauty.

## ⑫ DEMO

Use this button to play the 3 demo songs stored in the keyboard's internal memory.

See p.8 for more information on playing the demo songs.

## ⑬ POWER

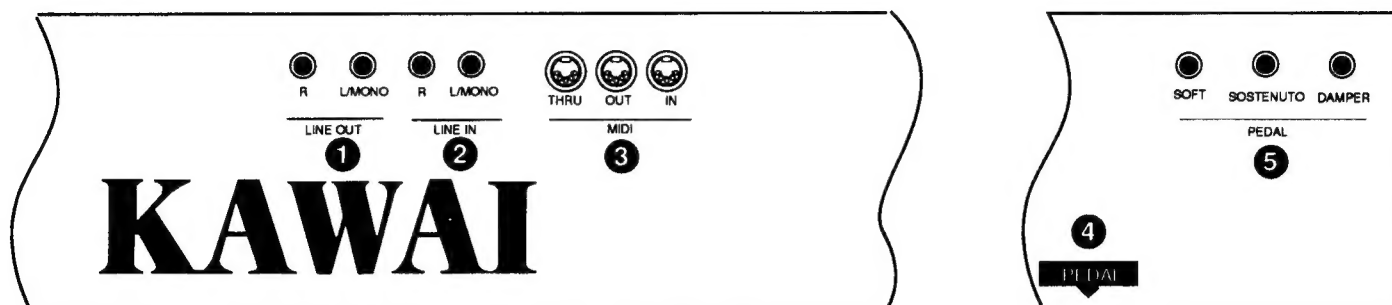
This switch turns the instrument on and off. Be sure to turn off the instrument when finished playing.

## ⑭ HEADPHONE jacks

These jacks equipped with CA800/600 are for headphones sold separately (SH-2).

This jack equipped with CA500(C) for headphones sold separately (SH-2).

## 2 Rear Panel



### ① LINE OUT

These jacks provide stereo output to amplifiers, stereo systems, tape recorders, or similar equipment. Use the L/MONO jack when using only one output.

### ② LINE IN

These jacks connect two channels of output from other electronic instruments to the piano's speakers. Use the L/MONO jack when using only one input.

***This input bypasses the piano's VOLUME control. To adjust the balance, you must use the output volume controls on the individual instruments.***

### ③ MIDI

These jacks allow communication with other gear equipped with MIDI.

### ④ PEDAL jack

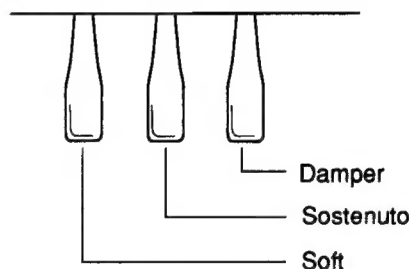
This jack is used to activate the damper, the sostenuto and soft pedals.

### ⑤ Optional PEDAL jacks (CA600/500(C) only)

These jacks are used to connect optional pedals externally.

### • The pedals

From right to left, the pedals are the damper pedal, sostenuto pedal, and the soft pedal.



**Damper pedal:** Pressing this pedal sustains the sound even after removing the hands from the keyboard.

**Sostenuto pedal:** Depressing this pedal after pressing the keyboard and before releasing the keys sustains the sound of only the keys just played.

**Soft pedal:** Pressing this pedal softens the sound, and also reduces its volume.



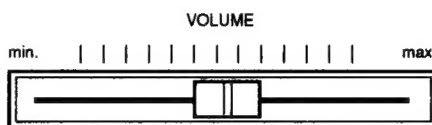
# Let's Play

## 1 Basic operations

**Step 1** Turn on the power.



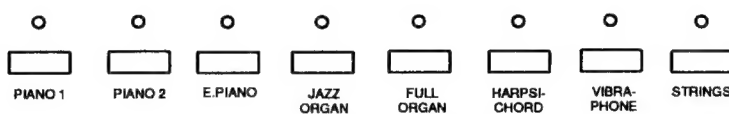
**Step 2** Adjust the volume.



Play a note on the keyboard and adjust the volume (Moving the slider to the right raises the volume; moving it to the left lowers it).

**Step 3** Choose the tone.

Pressing a **TONE SELECTOR** switch automatically changes the tone of the piano. The LED above it lights to indicate which tone is currently in effect. **PIANO1** is automatically selected when the power is turned on.



**Step 4** Play.

Experiment with the various tone colors to acquaint yourself with the sounds that are available.

**Note**

**Up to 32 keys can be played simultaneously ( 32 note polyphonic).**

**Step 5** Add an effect.

**CHORUS:** The sound is enhanced with the depth of a chorus.

**PAN:** Gives you the full stereophonic quality of an actual piano.

**Note**

**The CHORUS effect halves the number of simultaneous voices available to sixteen (16 note polyphonic).**

**Step 6** Add REVERB.

Three REVERB effects are available.

**ROOM:** Gives a soft REVERB effect simulating play in a room.

**STAGE:** Gives a REVERB effect simulating play on stage.

**HALL:** Gives a deep REVERB effect simulating play in a large concert hall.



## 2 DUAL and SPLIT

DUAL and SPLIT (CA800 only) modes allow you to combine two tones.

**DUAL MODE:** You can combine two tones in a layer with this mode, creating sounds and effects impossible with just a single tone.

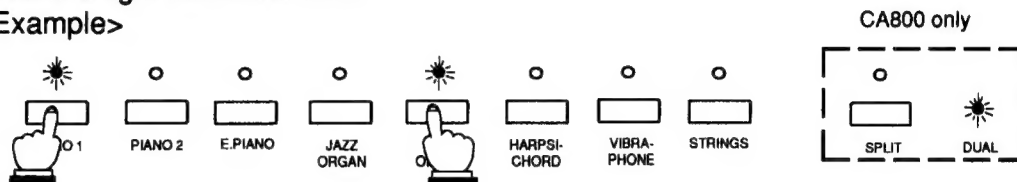
**SPLIT MODE:** In this mode it is possible to divide the keyboard at the SPLIT POINT into upper and lower halves, each with a different tone, for ensemble play.

### A. DUAL operation

#### Step 1

Simultaneously press two **TONE SELECTOR** switches to achieve tone colors at once and light the DUAL LED.

<Example>



#### Note

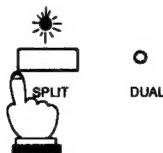
- ★ Pressing such a combination also halves the number of simultaneous voices available to sixteen (16 note polyphonic).
- ★ Pressing another pair changes the combination.
- ★ To cancel and return to normal operation, press a single tone selector switch.

### B. SPLIT operation (CA800 only)

This operation splits the keyboard into an upper and lower half with different tone colors. The LED for the UPPER keyboard timbre glows continuously; the one for the LOWER keyboard flashes.

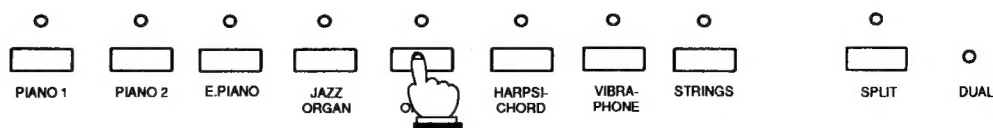
#### Step 1

Press the **SPLIT** switch so that the LED above it lights.



#### Step 2

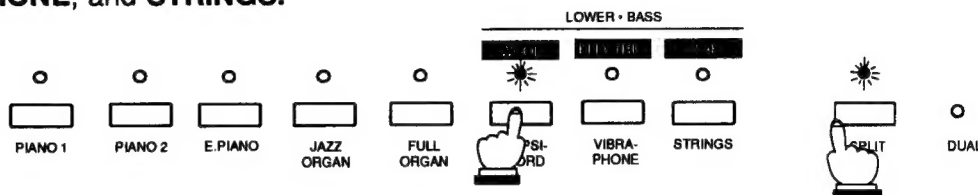
Press a **TONE SELECTOR** to change the UPPER tone.



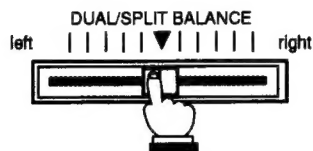
**Step 3**

Hold down the **SPLIT** switch and press a **TONE SELECTOR** to change the LOWER timbre. The selected timbre becomes the LOWER tone.

For the bass sounds, one of the three switches on the right end of the **TONE SELECTOR** will select the preset bass sounds whose names are written above the buttons **WOOD BASS**, **ELECTRIC BASS**, and **SLAP BASS**. Pushing one of these 3 buttons once again while holding down the **SPLIT** switch will select the preset sounds whose names are written below the button - **HARPSICHORD**, **VIBRA-PHONE**, and **STRINGS**.

**Step 4**

Adjust the relative loudness of the two tone colors with the **DUAL/SPLIT BALANCE** control.

**Step 5**

To cancel SPLIT MODE....

Push the **SPLIT** switch again. The LED above it will turn off and the keyboard will return to normal play mode.

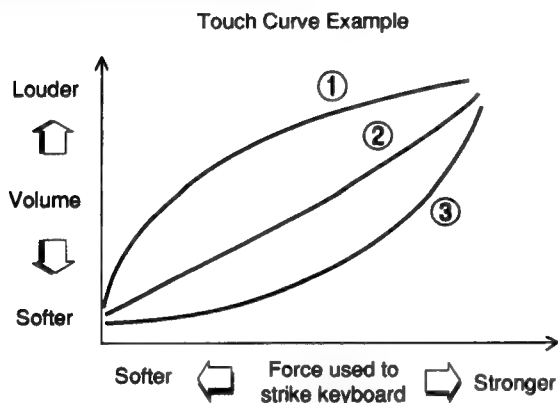
**Note**

- ★ When the function is first activated, the keyboard is split at the point marked with a triangle on the front panel, and LOWER keyboard assumes the WOOD BASS tone.
- ★ The LOWER tone specification remains in effect until the power is removed or the tone is changed.
- ★ Switching from DUAL operation to SPLIT operation makes the UPPER keyboard assume the right tone and the LOWER assume the WOOD BASS or the tone you chose for the LOWER tone.
- ★ You must turn the SPLIT operation off before you can return to DUAL operation.
- ★ To change the SPLIT point, see p.10 "Changing the SPLIT POINT".

### 3 Selecting the Touch Curve

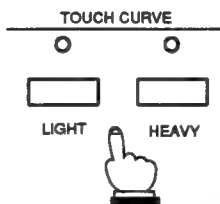
When playing a piano, the volume of the sound produced increases in direct relation to how hard the key is struck. "Touch Curve" is the expression used to describe the relationship between the volume and the strength with which the keyboard is struck.

You can select from 3 different touch curves with this keyboard.



- ①Light: For those still developing finger strength, such as a child, a louder sound is emitted even when played with a soft touch.
- ②Normal: Volume changes accordingly with normal touch.
- ③Heavy: Perfect for those with strong fingers or for practicing with a hard touch.

**Step 1** Press either the **LIGHT** or **HEAVY** switch to select the touch curve.



The LED of the selected touch curve will light.  
When neither LED is lit, the Normal setting is selected.

**Step 2** When you want to return the setting to "Normal", press the switch of the currently selected touch curve once again and its LED will turn off.

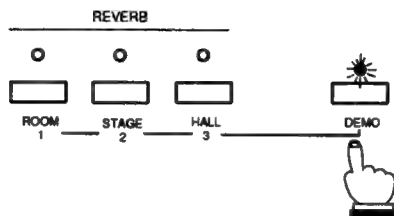
**Note**

**The default setting when the power to the keyboard is turned on is "Normal".**

## 4 Playing the Demo Songs

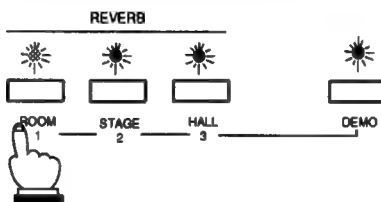
There are 3 demo songs stored in the keyboard's internal memory. Using the following method you can enjoy listening to an automated recital of these songs.

**Step 1** Press the **DEMO** switch.



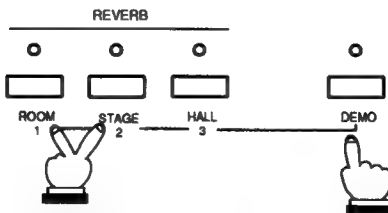
The 3 demo songs will play automatically one after another and repeat until stopped.

**Step 2** By pushing the **ROOM**, **STAGE**, or **HALL** switches, you can choose the specific demo song or songs (demo song 1 ~ 3) you wish to hear.



**Step 3** To stop the demo concert.....  
Push the **DEMO** button once again.  
Its LED will turn off and the demo song will stop.

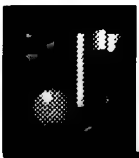
**Step 4** If you select the demo songs you want to hear, while at the same time holding down the DEMO switch, the selected song or songs will play repetitively until stopped.



In the example above demo songs 1 and 2 will be played repetitively.  
In this situation, the LED of the song being played will flash, and the LED of the song cued to play next will be lit. If you push the switch whose LED is lit or the one whose LED is flashing, the song corresponding to that switch will be played from the beginning.

**Note**

**You cannot change the reverb while the demo songs are playing.**



# Advanced Features

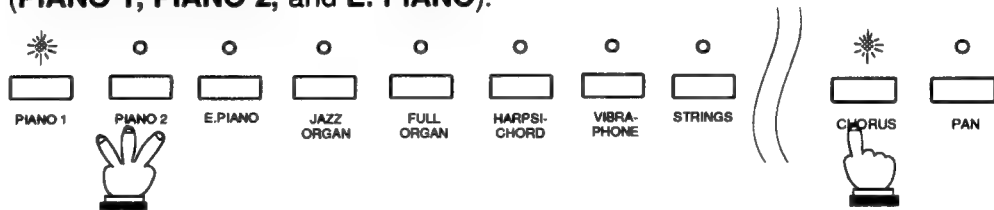
## 1 Programming Mode

The programming mode allows you to change the keyboard's tuning, and temperament, and utilize the various MIDI capabilities. These programming functions are performed using the panel switches and keyboard, so please try them after reading and understanding the programming instructions completely.

### A. Entering the programming mode

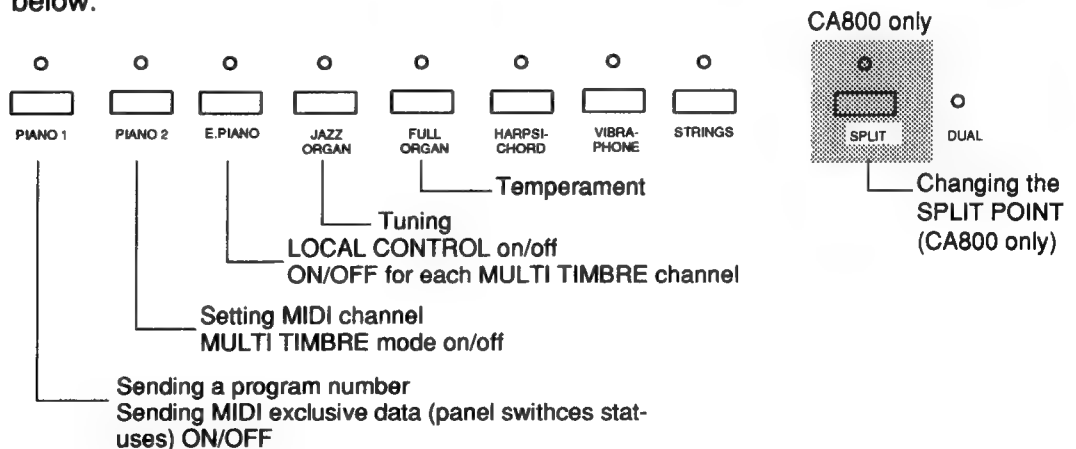
**Step 1** Press the **CHORUS** switch.

**Step 2** Holding down the **CHORUS** switch, press the first three tone selector switches (**PIANO 1**, **PIANO 2**, and **E. PIANO**).



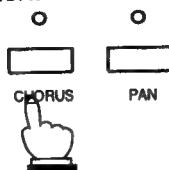
**Step 3** The LEDs above the **CHORUS** and **PIANO 1** switches should then start flashing to indicate that the piano is in the programming mode. In this mode, striking the keyboard produces no sound.

**Step 4** Press a **TONE SELECTOR** switch to select the desired programming mode. The correspondence between switches and 6 types of programming mode is as below.



## B. Leaving the programming mode

**Step 1** Press the **CHORUS** switch.



**Step 2** The flashing will stop, and you will return to the tone in effect when you entered the programming mode.

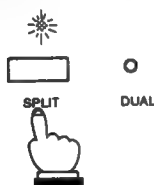
**Note**

*You can also continue into another programming mode by pressing another **TONE SELECTOR** without pressing the **CHORUS** switch.*

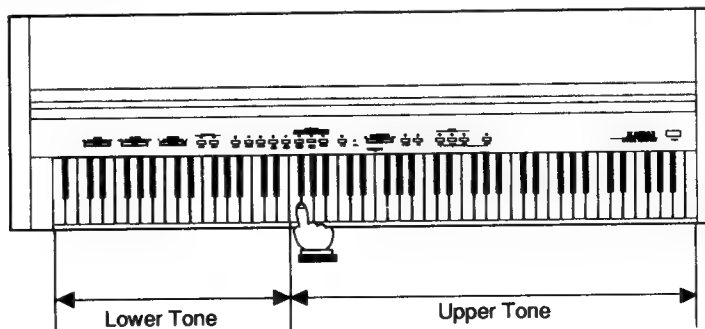
## 2 Changing the SPLIT Point (CA800 only)

**Step 1** Make sure that the piano is in the programming mode (see p.9).

**Step 2** Press the **SPLIT** switch so that it flashes to indicate that the piano is waiting for a SPLIT point specification.



**Step 3** Press the key corresponding to the lowest note for the desired UPPER range. For example, pressing the lowest key on the keyboard would make the entire keyboard as the UPPER.

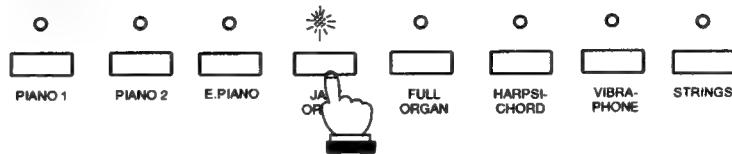


**Step 4** Leave the programming mode by pressing the **CHORUS** switch.

## 3 Tuning

**Step 1** Make sure that the piano is in the programming mode (see p.9).

**Step 2** Press the **JAZZ ORGAN** switch so that it flashes to indicate that the piano is ready to be tuned.

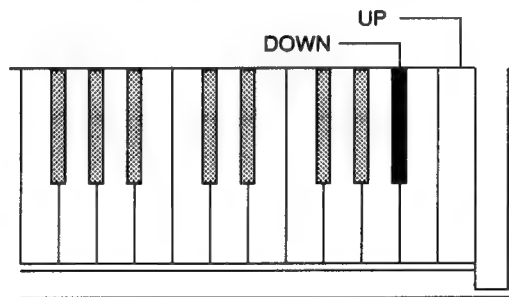


**Step 3** Unlike the other functions in the programming mode, this one produces sound so that you can compare the piano's pitch with another instrument.

**Note**

*Playing the keyboard when set up this way produces the tone selected before entering the programming mode. Tuning is done using this tone. If you want to change the tone, leave the programming mode (see p. 10), select the new tone and repeat steps (1) and (2).*

**Step 4** Press the highest black key to lower the pitch.  
Or press the highest white one to raise it.  
It may be necessary to press these keys repeatedly to achieve proper tuning.



**Note**

*The range of tuning possible is  $\pm 50$  cents (100 cents = a half tone). Each push of the key will change the tuning 1.56 cents.*

**Step 5** Leave the programming mode by pressing the **CHORUS** switch.

**Note**

*Momentarily turning off the power restores the original pitch.*

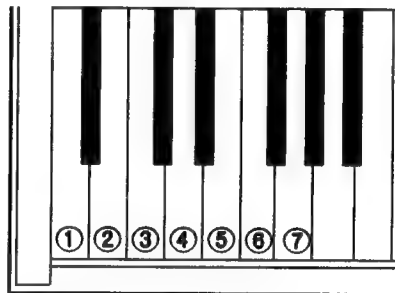
## 4 Temperaments

Your Kawai digital piano offers not only equal temperament (the modern standard) but also immediate access to those popular during the Renaissance and Baroque periods.

**Step 1** Make sure that the piano is in the programming mode.

**Step 2** Press the **FULL ORGAN** switch so that it flashes to indicate that the piano is waiting for a temperament specification.

**Step 3** Press one of the seven white keys at the lower end of the keyboard to select one of these corresponding temperaments.



- ① Equal temperament without the tuning curve
- ② Mersenne pure temperament
- ③ Pythagorean temperament
- ④ Meantone temperament
- ⑤ Werckmeister III temperament
- ⑥ Kirnberger III temperament
- ⑦ Equal temperament with the tuning curve

**Step 4** Leave the programming mode.

### Note

*When the power is first applied or reapplied after a short break, the piano returns to the modern standard (equal temperament with the tuning curve = #7).*

Key set function is also available at this point. As you know, limitless modulation of the key became available only after the invention of Equal temperament. When we use a temperament other than Equal temperament, we must carefully choose the key signature to play in.

To select the key signature setting, simply press one of the keys. For example, if the song you are going to play is written in D major, press D key to set the keys. Please note that this will only change the "balance" of the tuning, and the pitch of the keyboard will remain unchanged. Use the TRANSPOSE control to change the pitch of the whole keyboard.



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## ♣ Temperament characteristic

### ♣ Equal temperament

This, by far the most popular piano temperament, divides the scale into twelve equal semitones and has the advantage of producing the same chordal intervals in all twelve keys.

### ♣ Mersenne temperament

This temperament, which eliminates consonances for thirds and fifths, is still popular for choral music.

### ♣ Pythagorean temperament

This temperament, which uses mathematical ratios to eliminate consonances for fifths, has problems with chords, but produces very beautiful melodic lines.

### ♣ Meantone temperaments

This temperament, which uses a mean between a major and minor whole tone to eliminate consonances for thirds, was devised to eliminate the lack of consonances experienced with certain fifths for the Mersenne pure temperament. It produces chords that are more beautiful than those with the equal temperament.

### ♣ Werckmeister III temperament, Kirnberger III temperament

For key signatures with accidentals, this temperament produces the beautiful chords of the mean tone, but, as the accidentals increase, the tension increases, and the temperament produces the beautiful melodies of the Pythagorean temperament. It is used primarily for classical music written to take advantage of these characteristics.



# MIDI Interface

## 1 What's MIDI?

Before attempting to set the MIDI function, let's take a brief look at what MIDI is.

The letters MIDI stand for Musical Instrument Digital Interface, an international standard for connecting synthesizers, drum machines, and other electronic instruments so that they can exchange performance data.

Instruments equipped with MIDI have three jacks for exchanging data: IN, OUT, and THRU. Each uses a special cable with a DIN connector for connection (see p. 15).

IN: For receiving keyboard, timbre, and other data  
OUT: For sending keyboard, timbre, and other data  
THRU: For sending received data to another instrument without processing

Electrical and electronic musical instruments equipped with MIDI are able to transmit and receive performance data such as for keyboard and timbre.

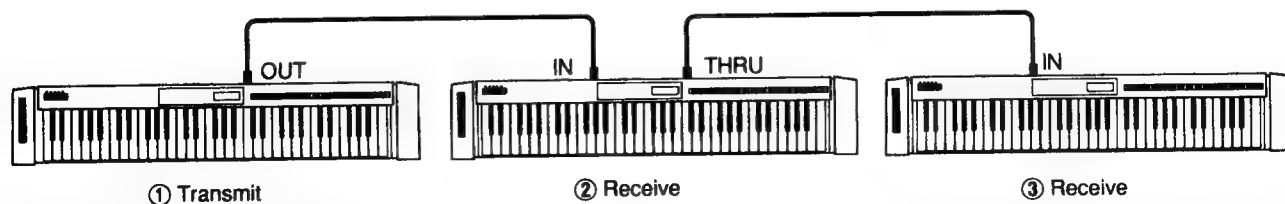
Depending on the connection method, instruments are grouped as those which receive data (producing sound according to data received from the connected instrument), those which send data (to the instruments to which they are connected), and those which both send and receive data.

The cable is connected to the MIDI IN jack of the instrument receiving data and to the OUT jack of the sending instrument. The THRU jack is used when the data received is to be sent to another instrument.

MIDI uses what are known as "channels" as a means of transmitting data for playing a specified instrument.

There are two types of channels, one for receiving and one for sending, and MIDI instruments are normally equipped with both types. Receive channels are used when an instrument receives data from another instrument, and send channels are used for transmission to another instrument.

For instance, let's say that three instruments are connected for playing in this way:



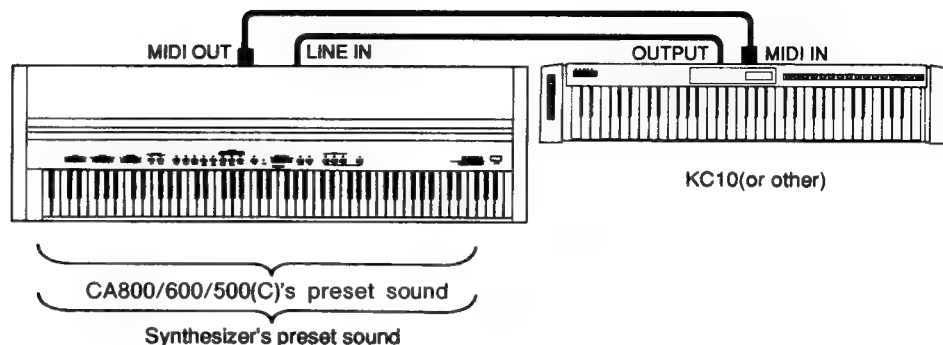
Instrument ①, which is sending, transmits the send channel along with keyboard and other data to instruments ② and ③, which are receiving. This data is sent to instruments ② and ③, but the data will not be received unless the receive channel for these two instruments matches the send channel used by instrument ①.

There are 16 channels each (1 through 16) available for both sending and receiving.

## 2 Connections

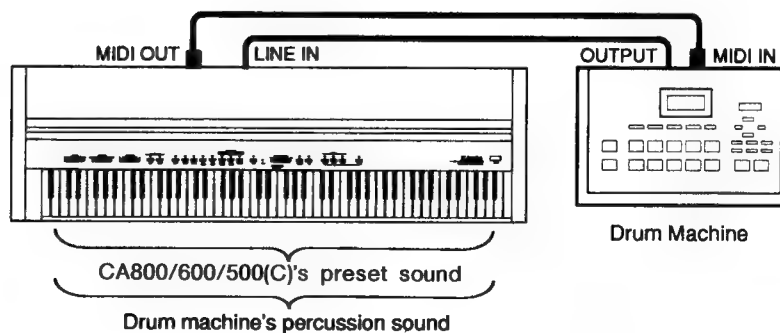
### (1) Connection to another MIDI-compatible keyboard

(connection with instruments such as the Kawai digital synthesizers KC10/K1II/K4)



When connected as shown in the illustration, data on how the digital piano is played (what keys are struck and how hard) is sent to the synthesizer unchanged. Also, by connecting the synthesizer's OUTPUT jack and the LINE IN jack on the digital piano, the sound from the digital piano can be layered over the sound of the synthesizer. Since timbre can be set separately, you can assemble a wide variety of sound combinations, such as a PIANO tone from the digital piano layered with a STRING tone from the synthesizer for a thick sound.

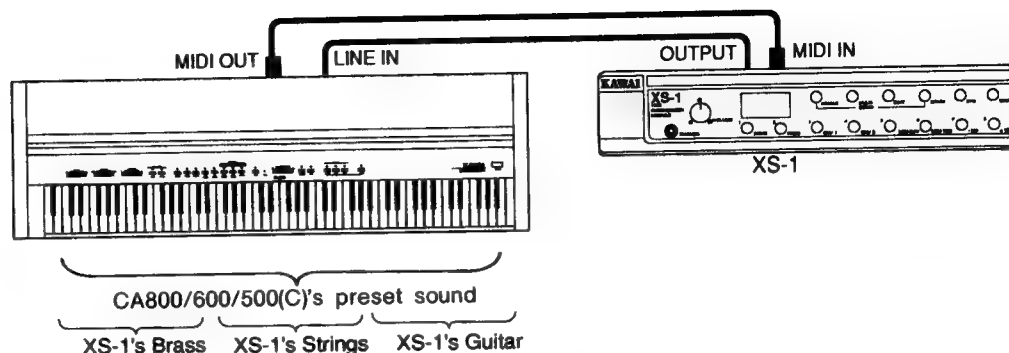
### (2) Connection to a drum machine



When connected as shown in the illustration, you can not only play along with the rhythm from the drum machine, you can also play the drum machine by striking the keys on the digital piano.

### (3) Connection to a sound generator module

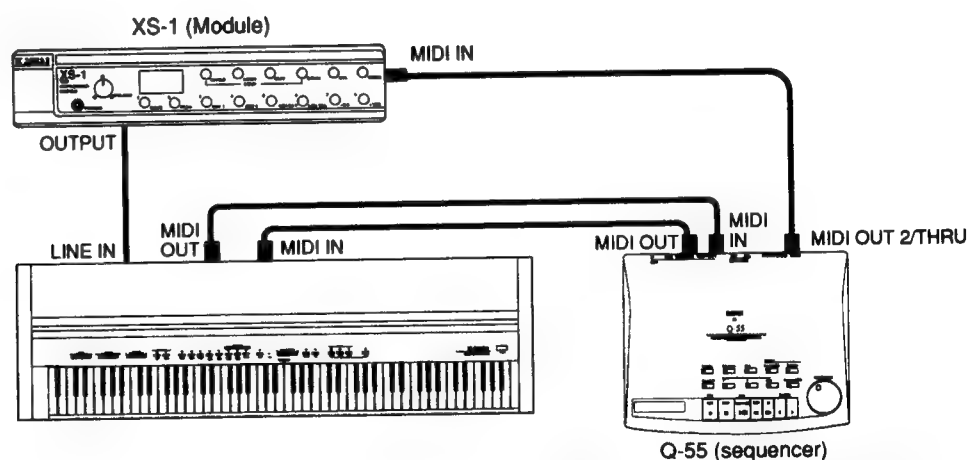
(connection with instruments such as the Kawai XS-1)



When connected as shown in the illustration, you can layer sounds like in example (1), as well as playing a large number of tones.

### (4) Connection to a sequencer and sound generator module

(connection with instruments such as the Kawai Q-55/XS-1)



When connected as shown in the illustration, you can record songs played on the digital piano with the sequencer and play them back as many times as you like, and layer the module's tones made with the digital piano's **MULTI TIMBRE** function to assemble a complex automatic performance.

## 3 MIDI Implementation

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The MIDI interface on your Kawai Digital Piano allows you to:

1. Receive and transmit keyboard data.

You can play the digital piano to output sound on a synthesizer or other instrument, or vice versa.

2. Set channel numbers for sending and receiving.

You can set send or receive channels to any number from 1 to 16.

3. Receive and transmit program numbers (codes for changing timbres).

You can operate the digital piano to change the programmed timbre of a synthesizer or other instrument connected with the MIDI interface to the digital piano, or vice versa (see p. 19).

4. Receive and transmit pedal data.

You can receive and transmit ON/OFF data for the soft and damper pedals.

5. Receive volume data.

You can control the volume of the digital piano from an external source connected via the MIDI interface.

6. Set MULTI TIMBRE.

When the digital piano is used as a receiving instrument, you can receive keyboard data on a number of different channels, producing different timbres for each one.

7. Sending and Receiving Exclusive data

Settings in the Programming Mode or Panel switch operations, such as **DUAL**, or **CHORUS** switches ON/OFF, can be sent as MIDI exclusive data.

★ **For details of the MIDI function of this instrument, please refer to the MIDI Implementation Chart.**

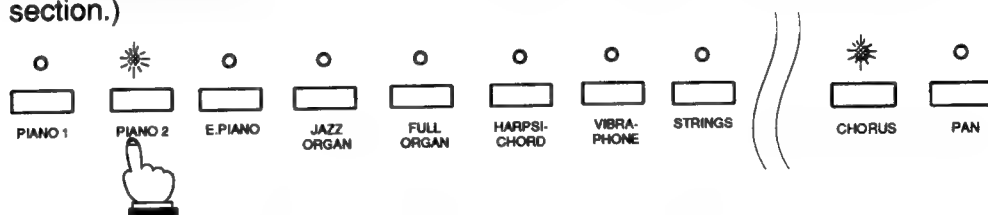
## 4 MIDI Settings

### A. Setting the channel

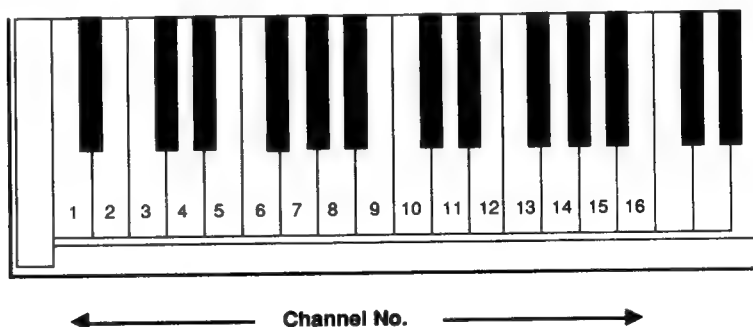
In order to be able to exchange information with a connected MIDI instrument, you must first set the interconnected instruments to the same channel.

**Step 1** Make sure that the digital piano is in the programming mode. ( see p. 9)

**Step 2** Press the **PIANO 2** switch so that it flashes to indicate that the interface is waiting for a channel specification.  
(It is also possible to turn the **MULTI TIMBRE** function on and off. See following section.)



**Step 3** Select the channel by pressing the one of the first 16 white keys at the lower end of the keyboard.



**Step 4** Pressing one of these keys automatically sets the instrument's transmitting and receiving channel to the number selected.

**Step 5** Leave the programming mode. (see p. 10)

#### Note

*When the power is first applied, the interface uses Channel 1 and has the OMNI parameter on. Changing to another channel automatically turns the OMNI parameter off. In OMNI mode, information from all channels is received.*

## B. Sending program number (timbre code) and MIDI exclusive data

### (a) Transmitting with the TONE SELECTORS

You can use the eight **TONE SELECTORS** during normal playing to transmit program number 0 through 7 shown in the chart below.

Tone Selector	Program No.
PIANO 1	0
PIANO 2	1
E. PIANO	2
JAZZ ORGAN	3
FULL ORGAN	4
HARPSICHORD	5
VIBRAPHONE	6
STRINGS	7

The digital piano is also able to transmit information on **TOUCH CURVE**, **DUAL**, **SPLIT**, and **Effects (CHORUS, PAN, REVERB)** operation statuses as MIDI exclusive data.

Transmission of a program number and MIDI exclusive data can be switched on and off as described below.

#### Step 1

Enter the programming mode (see p. 9).

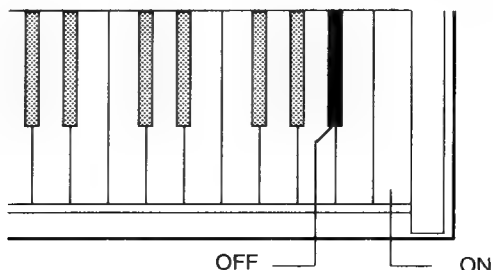
The LEDs for **CHORUS** and **PIANO 1** will flash. The flashing of the **PIANO 1** LED shows that the instrument is in the programming mode for transmitting the program number, so move on to the next step.

#### Note

**No sound will be played if the keyboard is pressed at this time.**

#### Step 2

Press the highest black or white key.



Pressing the black key (OFF) disables transmission of the program number and MIDI exclusive data. Pressing the white key (ON) enables it.

**Step 3**

Press the **CHORUS** switch to leave the programming mode.  
You may then change to another programming mode.

**Note**

★ *The setting described above is automatically set on when the power is turned on, so you can also turn the setting simply by turning the power off and then on again, instead of using the procedure described above.*

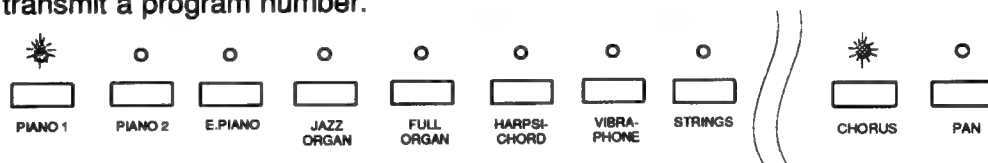
★ *In Dual/Split modes, tone data is not sent as MIDI standardized "Program Number" but, as Kawai's unique "Exclusive data" .*

**(b) Using black keys**

In addition to transmission with the **TONE SELECTORs**, you can also use the black keys on the instrument to send program numbers 0 through 127.

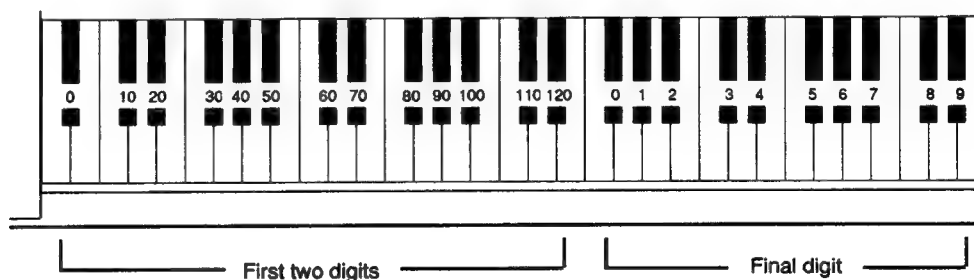
**Step 1**

Make sure that the digital piano is in the programming mode. (see p. 9)  
The flashing LED of the **PIANO 1** switch indicates that the interface is ready to transmit a program number.

**Step 2**

Select the program number by pressing the corresponding pair of black keys at the lower end of the keyboard.

There are a total of 128 numbers possible: the first thirteen black keys give the first and second digits ("00" - "12") of this three digit numbers; the next ten, the final digit ("0" - "9").

**Note**

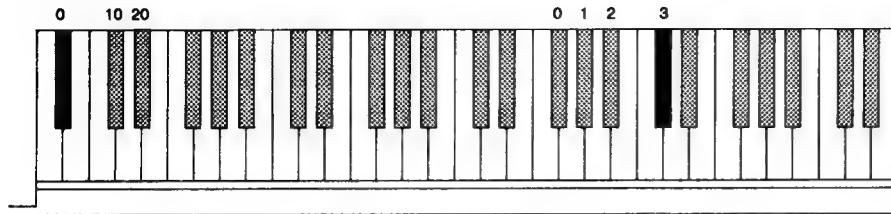
*You must press the two keys in order from left to right.*



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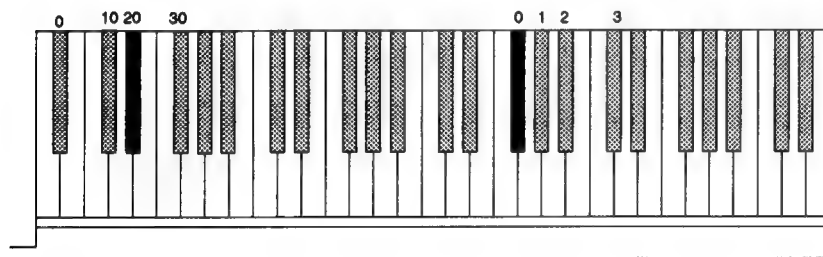
## • Example

### • Program No. 3



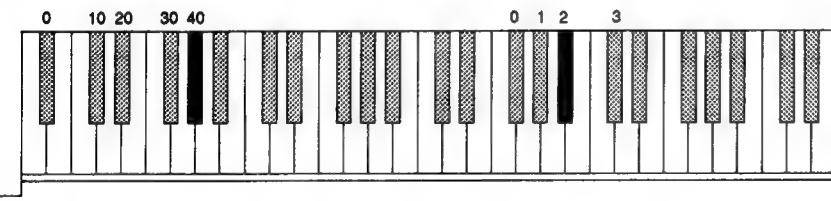
- Press the "00" key and then the "3" key.

### • Program No. 20



- Press the "20" key and then the "0" key.

### • Program No. 42



- Press the "40" key and then the "2" key.

### Note

- ★ When transmitting a program number that has the same tens digit as the number being sent (such as, for instance, transmitting 33 after sending 31), you don't need to press the tens digit. The number can be transmitted simply by pressing the ones digit.
- ★ The tens digit is set at "0" when the programming mode is entered.

### Step 3

Leave the programming mode. (see p. 10)

## C. Turning MULTI TIMBRE on and off

Normally, the procedure described above is used to transmit or receive data on a set MIDI channel (any one of 1 through 16), but by turning the MULTI TIMBRE function on you can receive more than one MIDI channel and simultaneously play a different type of timbre on each one. With this feature, you can use a sequencer such as the Kawai Q-80/Q-55 to assemble performances with a number of timbres (MULTI TIMBRE) on the digital piano.

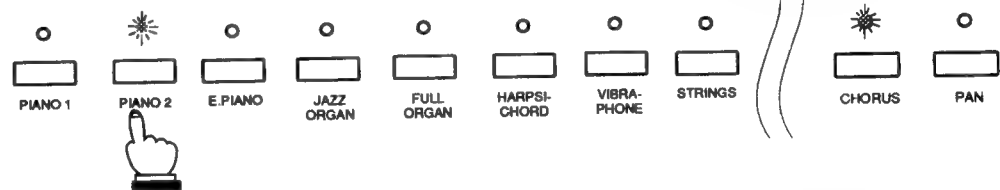
There are 2 parameters to which the MULTI TIMBRE mode can be set. MULTI TIMBRE 1 produces the preset sound directly corresponding to the channel of the MIDI signal received. MULTI TIMBRE 2 lets you set which sound will be on or off for each channel of signal received.

### Step 1

Make sure that the digital piano is in the programming mode. (see p. 9)

### Step 2

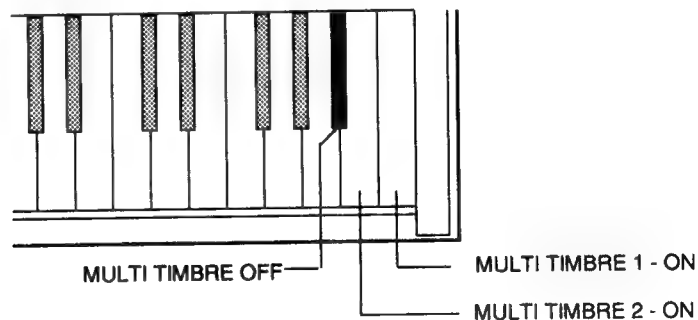
Press the **PIANO 2** switch to set the LED above the **PIANO 2** switch flashing.



### Step 3

The white and black keys on the far right of the keyboard are used to turn the MULTI TIMBRE mode on and off.

Pressing the white key on the extreme right turns on MULTI TIMBRE 1, the white key second from the extreme right turns on MULTI TIMBRE 2, and the black key turns off MULTI TIMBRE.



When MULTI TIMBRE is off and a MIDI signal is received, the preset sound currently selected will produce the sound.

When MULTI TIMBRE 1 is on, the preset sound that corresponds with the MIDI channel (shown on the previous page) will automatically produce the sound.

When MULTI TIMBRE 2 is on, you can select which sound will be on and off for each channel of reception.

When MIDI data is received while the MULTI TIMBRE function is off, it will be played according to whichever TONE SELECTOR is currently selected. When the MULTI TIMBRE 1 mode is on, the received MIDI data will be played in the timbre corresponding to the MIDI channel shown in the chart below, regardless of the TONE SELECTOR currently in effect.

Channel	Timbre	Channel	Timbre
1	PIANO 1	9	E. PIANO 2
2	PIANO 2	10	Empty
3	E. PIANO	11	CLAVI
4	JAZZ ORGAN	12	PIPE ORGAN
5	FULL ORGAN	13	BELL
6	HARPSICHORD	14	WOOD BASS
7	VIBRAPHONE	15	ELECTRIC BASS
8	STRINGS	16	SLAP BASS

- ★ *The default setting for the MULTI TIMBRE mode ON/OFF when the keyboard's power is turned on is OFF.*
- ★ *When MULTI TIMBRE 1 or 2 is on, the preset sound for each channel of reception will play in full scale even if the SPLIT MODE is on. When sending signals, notes of the high register will be sent to the MIDI channels shown previously, and notes of the low register will be sent to the MIDI channel corresponding to that channel +1.*

**Step 4** Leave the programming mode. (see p. 10)

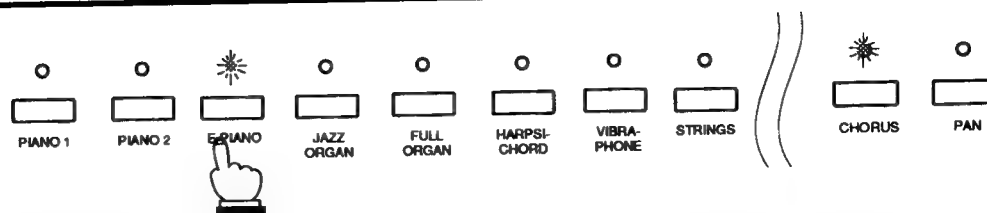
## D. Turning on and off individual sounds when using MULTI TIMBRE 2 mode

When MULTI TIMBRE 2 mode is on, use the following steps to turn on or off each sound.

**Step 1** Enter the programming mode. (see p.9)

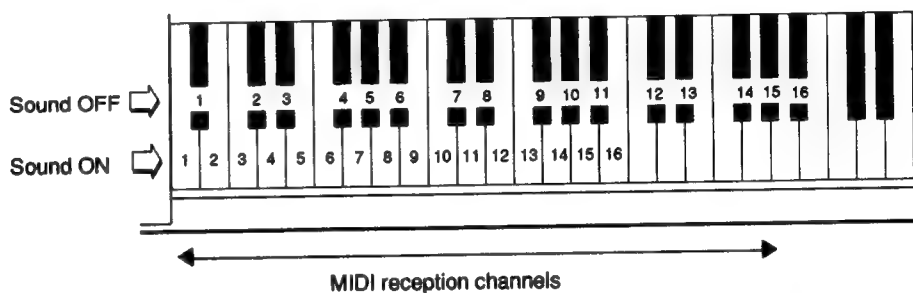
**Step 2** Press **E. PIANO** switch.

The flashing LED will move from **PIANO 1** to **E. PIANO** indicating that the keyboard is in the programming mode for setting which sounds will be on and off, and turning local control on and off when using MULTI TIMBRE 2 mode.



### Step 3

Use the black and white keys at the left end of the keyboard to set the sound for each channel on or off.



Use the 16 white keys at the left end of the keyboard to set the channels to ON.  
Use the 16 black keys at the left end of the keyboard to set the channels to OFF.

### Step 4

Press **CHORUS** switch to exit the programming mode. (see p. 10)

### Note

- ★ The default setting in the **MULTI TIMBRE 2** mode, the sound for 2 to 10 channels is off.
- ★ In the **MULTI TIMBRE 2** mode, receiving the program change data for individual channels makes it possible to change the tone color which corresponds to the table given below.

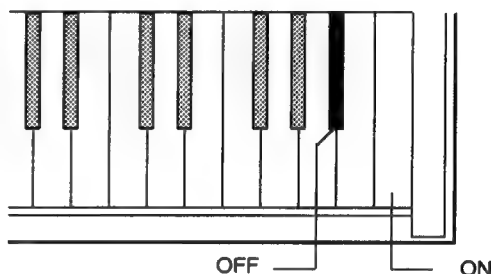
Program change number	Tone color	Program change number	Tone color	Program change number	Tone color
0	PIANO 1	6	VIBRAPHONE	12	WOOD BASS
1	PIANO 2	7	STRINGS	13	ELECTRIC BASS
2	E. PIANO	8	E. PIANO 2	14	SLAP BASS
3	JAZZ ORGAN	9	CLAVI	15~127	PIANO 1
4	FULL ORGAN	10	PIPE ORGAN		
5	HARPSICHORD	11	BELL		

## E. LOCAL CONTROL

This mode is used to set whether the sound from the piano's keyboard will be played or not, and is called the LOCAL CONTROL ON/OFF mode.

**Step 1** Make sure that the piano is in the programming mode. (see p.9)  
After turning off the **MULTI TIMBRE** mode, press the **E. PIANO** switch.  
The flashing LED will change from **PIANO 2** to **E. PIANO**.

**Step 2** Press the highest white or black key to turn LOCAL CONTROL on or off.



White key (ON): The piano will output sound when the keys are struck.

Black key (OFF): Sound will be output only when MIDI data is received, and not when the keyboard is played.

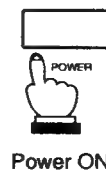
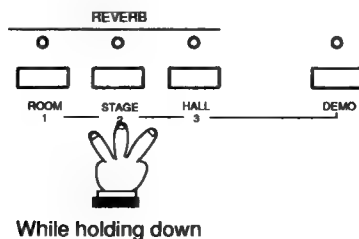
★ *You can also turn this on by turning the power off and then on again, instead of using the highest key as described above.*

**Step 3** Press the **CHORUS** switch to leave the programming mode.

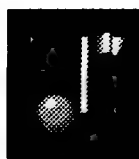
## F. One Touch Local Control OFF

The followings are a shortcut method to turn the Local Control OFF.

**Step 1** Turn the power switch on while holding down the 3 reverb switches.

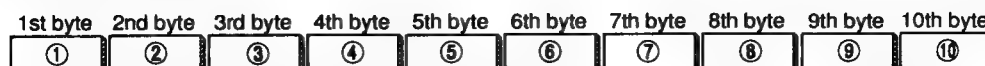


Local control has been set to off.



# MIDI Exclusive Data Format

## 1 Data format



- ① F0 ..... Start code
- ② 40 ..... Kawai's ID number
- ③ 00 - 0F ... MIDI channel
- ④ 10, 30 ..... Function code (30 when setting MULTI TIMBRE 2 ON/OFF)
- ⑤ 04 ..... Indicates that the instrument is Electronic Piano
- ⑥ 02 ..... Indicates that the piano is one of "CA" series
- ⑦ data 1 } Exclusive data. Data 3 may not
- ⑧ data 2 } exist depending on the function
- ⑨ data 3 } (see below).
- ⑩ F7 ..... End code

## 2 Data structure

data 1	data 2	data 3	Function
00	00	-	MULTI TIMBRE 1 OFF
01	00	-	MULTI TIMBRE 1 ON
02	00	-	MULTI TIMBRE 2 ON
0B	00 /7F	-	CHORUS ON/OFF (7F;ON, 00; OFF)
0E	00 - 03	-	data 2 = 0; Reverb OFF data 2 = 1 ~ 3; Reverb 1 ~ 3 ON
0F	15 ~ 6C	-	Split point (CA800 only)
14	00 ~ 7F	-	Dual/Split balance (40; center)(CA800 only)
15	00/7F	-	PAN ON/OFF
16	20~40~5F	-	Tuning (20;minimum, 40;center, 5F;maximum)
17	00/7F	-	MIDI exclusive data transmission ON/OFF
18	00 ~ 02	-	Touch curve select (0; Light, 1; Normal, 2; Heavy)
20	00 ~ 07	00 ~ 07	Dual ON (data 2; Right tone, data 3 ; Left tone)
21	00 ~ 07	00~07,00~12	Split ON (data 2; Upper tone, data 3; Lower tone)
25	00 ~ 06	00 ~ 0B	data 2; Temperament No., data 3; root key No.
26	00/7F	00 ~ 0F	data 2; MULTI TIMBRE 2 ON/OFF data 3; Channel



# Specifications

	CA800	CA600	CA500	CA500 C
Keyboard	88 WOODEN AWA - GRAND	88 WOODEN ADVANCED AWA		
Polyphonic	32 (16 when using CHORUS)			
Tone colors	PIANO 1, PIANO 2, E. PIANO, JAZZ ORGAN, FULL ORGAN, HARPSICHORD, VIBRAPHONE, STRINGS			
	WOOD BASS, ELECTRIC BASS, SLAP BASS			
Effects	CHORUS, PAN, REVERB (ROOM, STAGE, HALL)			
Temperaments	Equal, Mersenne pure, Pythagorean, Meantone, WerckmeisterIII, KernbergerIII			
Other Features	VOLUME, BRILLIANCE, TRANSPOSE, TUNE, DUAL, TOUCH CURVE SELECTION (Light, Normal, Heavy)			
	SPLIT, DUAL/SPLIT BALANCE SPLIT POINT Selection			
Pedals	Damper, Sostenuto, Soft			
Jacks	Headphone (2)		Headphone	
	MIDI (IN, OUT, THRU), LINE IN (L/MONO, R), LINE OUT (L/MONO, R)			
	Pedal (Damper, Sostenuto, Soft),			
Output Power	30W x 2		20W x 2	
Speakers	16 cm x 2, 5 cm x 2 with speaker box	13 cm x 2, 5 cm x 2 with enclosure		
Power Consumption	130W		70W	
Finish	Cosmo Black & Satin Wood			Beaver Walnut
Dimensions	142 x 51 x 86 cm	142 x 51 x 85 cm	140 x 49 x 82 cm	
Weight	69 kg (without bech)	68 kg (without bench)	63 kg (without bench)	

# Model CA800/600/500(C) MIDI Implementation Chart

Version: 1.0

Function		Transmitted	Recognized	Remarks
<b>Basic Channel</b>	Default	1	1	
	Changes	1 - 16	1 - 16	
<b>Mode</b>	Default	3	1	**The default for the OMNI mode is ON. Specifying MIDI channels automatically turns it OFF
	Messages Altered	× *****	1, 3**	
<b>Note Number</b>	True voice	21 - 108* *****	0 - 127 15 - 113	
<b>Velocity</b>	Note ON	○ 9nH v=1-127	○	
	Note OFF	× 9nH v=0	×	
<b>After Touch</b>	Key's	×	×	
	Ch's	×	×	
<b>Pitch Bend</b>		×	×	
<b>Control Change</b>	7	×	○	Volume
	64	○ (Right pedal)	○	Damper pedal
	66	○ (Middle pedal)	×	Sostenuto pedal
	67	○ (Left pedal)	○	Soft pedal
<b>Program Change</b>		○ 0 - 127 *****	○ 0 - 127***	
<b>System Exclusive</b>		○	○	ON/OFF Selectable
<b>Common</b>	:Song Pos	×	×	
	:Song Sel	×	×	
	:Tune	×	×	
<b>System Real Time</b>	:Clock	×	×	
	:Commands	×	×	
<b>Aux</b>	:Local ON/OFF	×	○	
	:All Notes OFF	○	○	
	:Active Sense	○	○	
	:Reset	×	×	
<b>Notes</b>		*15-113 The value depends on the TRANSPOSE setting. *** 8-127=0 (MULTI TIMBRE OFF/1) 15-127=0 (MULTI TIMBRE 2 )		

Mode 1 : OMNI ON, POLY

Mode 2 : OMNI ON, MONO

○ : Yes

Mode 3 : OMNI OFF, POLY

Mode 4 : OMNI OFF, MONO

× : No





# KAWAI

Kawai Musical Instruments Manufacturing Co., Ltd.  
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